REMARKS

The Applicant submits this paper as a fully-responsive reply to the non-final Official Action mailed by the Office on 29 March 2005 (hereinafter the "Action"). the Applicant submits that this paper is timely filed on or before 29 September 2005, with a petition for a three-month extension of time to respond.

The Applicant respectfully requests reconsideration and withdrawal of the rejections as stated in the Action.

Claims 1-34 are pending in this application.

§102 Rejections

Paragraph 4 on Page 2 of the Action stated a rejection of **Claims 1-34** under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2003/0191986 A1 to Cyran, et al. (hereinafter, "Cyran"). The Applicant respectfully traverses these rejections for the reasons set forth below.

Turning to **independent claim 1**, solely to advance the prosecution of this application, and without conceding the propriety of the stated rejections, the Applicant has amended claim 1 as indicated above to further clarify the processor-readable medium.

For convenience, the Applicant reproduces claim 1 as amended above, with redlines included:

"1.   (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for:

identifying a plurality of respective states of applications having instructions executing on a processor, the respective states being identified over an interval of time;

receiving a plurality of instantaneous power consumption data-level indications over the interval of time from a power measurement circuit; and

correlating ones of the instantaneous power consumption data-level indications with corresponding ones of the identified states of the applicationsinstructions."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, by the Applicant's Figure 4, and by the description thereof in the Applicant's specification from page 12, line 4 to page 13, line 10.

For convenience in contrasting the subject matter of the instant application with Cyran, the Applicant's Figure 4 is reproduced here:
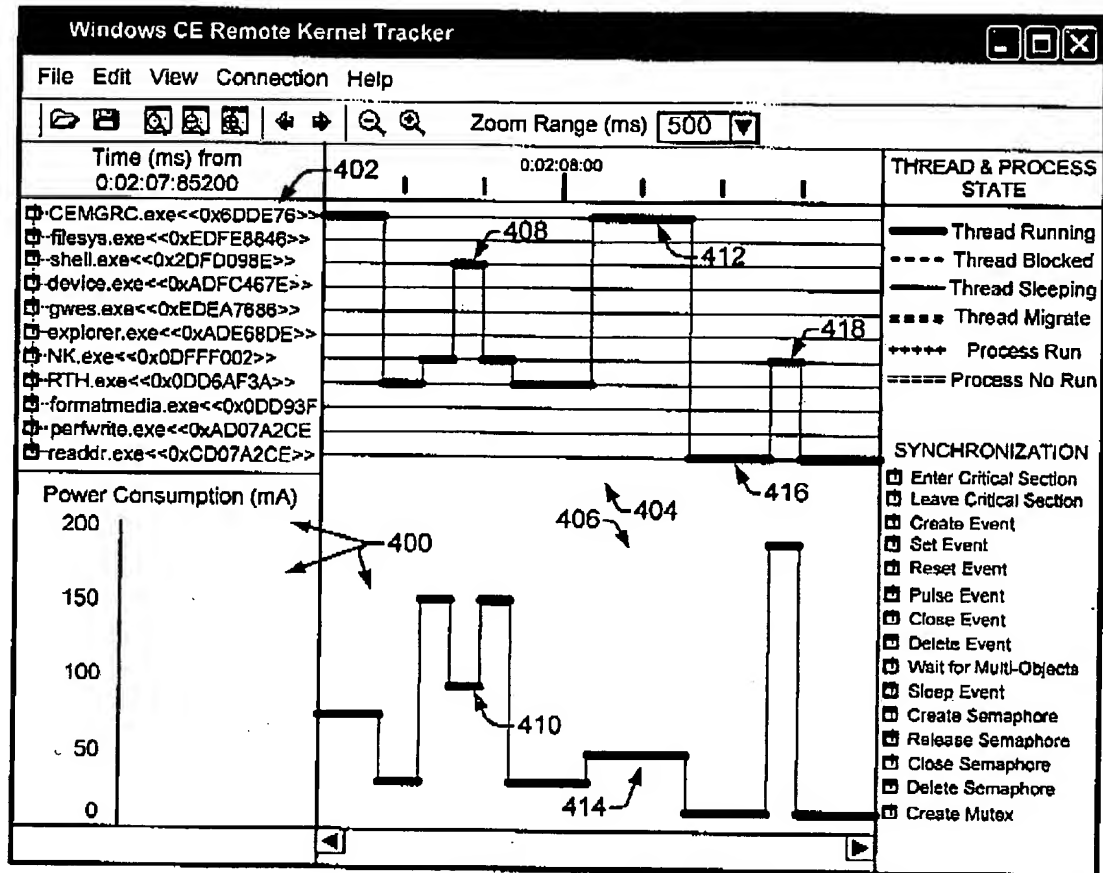

Fig. 4

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 1. More particularly, Cyran does not disclose at least "identifying a plurality of *respective states* of applications having instructions executing on a processor, the respective

states being identified *over an interval of time;*" (emphasis added), as recited in claim 1 above.

For convenience, the Applicant reproduces Cyran's Figure 13 here:

FIG. 13

While Cyran's Figure 13 illustrates a list of "Functions", Cyran fails to disclose identifying states of the functions, or identifying the states over an interval of time. Cyran's Figure 13 appears to provide a snapshot of the functions, rather than indicating the status of the application instructions over time.

The Applicant further submits that Cyran does not disclose "receiving a plurality of *instantaneous* power consumption level indications *over the interval of time* from a power measurement circuit", as recited in claim 1 above. While Cyran's Figure 13 illustrates maximum power and average power parameters associated with various functions, Cyran does not disclose a plurality of instantaneous power consumption level indications over the interval of time.

Finally, the Applicant submits that Cyran does not disclose "correlating ones of the instantaneous power consumption level indications with corresponding ones of the identified states of the applications", as also recited in claim 1. While Cyran's Figure 13 may relate respective functions to corresponding maximum and average power parameters, Cyran does not disclose correlating respective instantaneous power consumption level indications with corresponding ones of the identified states of the applications.

Based at least on the foregoing, the Applicant submits that Cyran does·not support a § 102 rejection of claim 1, and thus requests reconsideration and

withdrawal of the § 102 rejection of claim 1. These comments apply equally to claims 2-9, which depend from claim 1 and stand rejected under similar grounds.

Turning to **independent claim 10**, solely to advance the prosecution of this application, and without conceding the propriety of the stated rejections, the Applicant has amended claim 10 as indicated above to further clarify the processor-readable medium.

For convenience, the Applicant reproduces claim 10 as amended above, with redlines included:

"**10.** (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for associating respective states of a software instruction executed on a processor with an corresponding indications of the amounts of power consumed instantaneously by executing the states of the software instruction."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 10. More particularly, Cyran does not disclose at least "associating respective *states of a software instruction* executed on a processor with corresponding indications of the

amounts of power *consumed instantaneously by executing the states* of the software instruction", as recited in claim 10. Cyran's Figure 13 does not disclose respective states associated with Cyran's list of functions. Additionally, Cyran's Figure 13 does not disclose instantaneous power levels. The Applicant's comments regarding Cyran directed above to claim 1 apply equally to claim 10.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 10, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 10. These comments apply equally to claim 11, which depends from claim 10 and stands rejected under similar grounds.

Turning to **dependent claim 11**, in addition to the comments directed above to claim 10, the Applicant has amended claim 11 to further clarify the processor-readable medium. For convenience, the Applicant reproduces claim 11 as amended above, with redlines included:

"11.   (Currently Amended) A processor-readable medium as recited in claim 10, wherein the associating comprises generating a power profile that matches the respective states of the software instructions executing on an embedded device over an interval of time with corresponding instantaneous power consumption values measured during execution of the software instructions over the interval of time."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 11. More particularly, Cyran does not disclose at least "generating a power profile that *matches the respective states* of the software instructions executing on an embedded device *over an interval of time* with *corresponding instantaneous power consumption values* measured during execution of the software instructions over the *interval of time*", as recited in claim 11. The Applicant's comments regarding Cyran directed above to claim 1 apply equally to claim 11.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 11, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 11.

Turning to **independent claim 12**, the Applicant has amended claim 12 to further clarify the processor-readable medium. For convenience, the Applicant reproduces claim 12 as amended above, with redlines included:

"12.   (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for:

measuring <u>over time a plurality of instantaneous</u> power consumption <u>levels</u>

<u>associated with states</u> of software instructions executing on a target computing device;

converting analog power measurements into digital power measurements; and

transmitting the digital power measurements to a host computer."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 12. More particularly, Cyran does not disclose at least "measuring *over time* a plurality of *instantaneous power consumption* levels associated with *states of software instructions* executing on a target computing device", as recited in claim 12. The Applicant's comments regarding Cyran directed above to claim 1 apply equally to claim 12.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 12, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 12. These comments apply equally to claims 13-16, which depend from claim 12 and stand rejected under similar grounds.

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PAGE 24/36 * RCVD AT 9/28/2005 4:56:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/35 * DNIS:2738300 * CSID:15093238979 * DURATION (mm-ss):08-38

Turning to **independent claim 17**, the Applicant has amended claim 17 to further clarify the method. For convenience, the Applicant reproduces claim 17 as amended above, with redlines included:

"17.   (Currently Amended) A method comprising generating a power profile that associates, over an interval of time, respective states of a-software instructions with an amount of power instantaneously consumed during execution of the states of the software instructions."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 17. More particularly, Cyran does not disclose at least "generating a power profile that associates, over an *interval of time, respective states of software instructions* with an amount of power *instantaneously consumed* during execution of the *states* of the software instructions", as recited in claim 17. The Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 17.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Also, Cyran's Figure 13 appears to provide a snapshot, rather than an indication of the states of the software instructions over an interval

22

of time. Additionally, the maximum power and average power statistics shown in Cyran's Figure 13 do not disclose "... an amount of power instantaneously consumed ...", as recited in claim 17. Finally, Cyran's Figure 13 does not associate instantaneous power consumption levels with states of different instructions.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 17, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 17. These comments apply equally to claims 18-19, which depend from claim 17 and stand rejected under similar grounds.

Turning to **independent claim 20**, the Applicant has amended claim 20 to further clarify the computer. For convenience, the Applicant reproduces claim 20 as amended above, with redlines included:

"20.   (Currently Amended) A computer comprising a power profiler configured to identify states of software instructions executing on a processor, receive instantaneous power consumption data corresponding to the states of the software instructions, and correlate the instantaneous power consumption data with the states of the software instructions such that each the states of the software instructions is are associated with an instantaneous power consumption value indicating an amount of power consumed over time during the executing of the software instruction."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 20. More particularly, Cyran does not disclose at least "a power profiler configured to identify *states of software instructions* executing on a processor, receive *instantaneous power consumption data corresponding to the states of the software* instructions, and correlate the *instantaneous power consumption* data with the *states of the software instructions* such that the states of the software instructions are associated with an *instantaneous power consumption* value indicating an amount of power consumed *over time* during the executing of the software instruction", as recited in claim 20. The Applicant's comments regarding Cyran directed above to claims 1 and 17 thus apply equally to claim 20.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 20, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 20. These comments apply equally to claims 21-22, which depend from claim 20 and stand rejected under similar grounds.

Turning to **independent claim 23**, the Applicant has amended claim 23 to further clarify the computer. For convenience, the Applicant reproduces claim 23 as amended above, with redlines included:

23.   (Currently Amended) A computer comprising a power profiler configured to generate a power profile that correlates, over time, states of respective software instructions with instantaneous power consumptioned levels during execution of the software instructions.

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 23. More particularly, Cyran does not disclose at least "A computer comprising a power profiler configured to generate a power profile that correlates, *over time, states* of respective software instructions with *instantaneous* power consumption levels during execution of the software instructions", as recited in claim 23. The Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 23.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Also, Cyran's Figure 13 appears to provide a snapshot,

LEX & HAYES, PLLC   25   8J5159.DOC

rather than an indication of the states of the software instructions over an interval of time. Finally, Cyran's Figure 13 does not correlate instantaneous power consumption levels with states of different instructions.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 23, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 23.

Turning to **independent claim 24**, the Applicant has amended claim 24 to further clarify the computer. For convenience, the Applicant reproduces claim 24 as amended above, with redlines included:

"24.   (Currently Amended) A computer comprising:

means for identifying states of applications having instructions executing on a processor;

means for receiving instantaneous power consumption data from a power measurement circuit; and

means for generating a power profile that correlates the instantaneous power consumption data with the identified states of the instructions."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

26

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 24. More particularly, Cyran does not disclose at least "means for *identifying states of applications* having instructions executing on a processor", and "means for generating a power profile that correlates the *instantaneous power consumption* data with the *identified states of the instructions*" as recited in claim 24. The Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 24.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Additionally, the maximum power and average power statistics shown in Cyran's Figure 13 do not disclose "the instantaneous power consumption", as recited in claim 24. Finally, Cyran's Figure 13 does not correlate the instantaneous power consumption levels with identified states of different instructions.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 24, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 24. These comments apply equally to claims 25-26, which depend from claim 24 and stand rejected under similar grounds.

Turning to **independent claim 27**, the Applicant has amended claim 27 to further clarify the power measurement circuit. For convenience, the Applicant reproduces claim 27 as amended above, with redlines included:

"27.   (Currently Amended) A power measurement circuit comprising:

means for measuring instantaneous power consumption levels associated with states of software applications having instructions executing over time on an embedded device;

means for converting analog power-measurements of the instantaneous power consumption levels into digital representationspower-measurements; and

means for transmitting the digital power-measurementsrepresentations to a host computer in response to a query from the host computer."

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 27. More particularly, Cyran does not disclose at least "means for measuring *instantaneous power consumption levels* associated with *states of software applications* having instructions executing on an embedded device", as recited in claim 27. The

28

Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 27.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Also, Cyran's Figure 13 appears to provide a snapshot, rather than an indication of the states of the software instructions over an interval of time. Additionally, the maximum power and average power statistics shown in Cyran's Figure 13 do not disclose "... the instantaneous power consumption levels ...", as recited in claim 27. Finally, Cyran's Figure 13 does not associate instantaneous power consumption levels with states of different instructions.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 27, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 27. These comments apply equally to claim 28, which depends from claim 28 and stands rejected under similar grounds.

Turning to **independent claim 29**, the Applicant has amended claim 29 to further clarify the computer. For convenience, the Applicant reproduces claim 29 as amended above, with redlines included:

29.   (Currently Amended) A computer comprising:

a processor;

at least one application instructions stored in a memory and executable on the processor; and

a power measurement circuit configured to measure, over time, instantaneous power consumption levels associated ~~by the processor during~~with execution of at least one state of the application~~each instruction~~.

These revisions are believed fully supported under 35 U.S.C. § 112, 1st paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 29. More particularly, Cyran does not disclose at least "a power measurement circuit configured to measure, *over time, instantaneous* power consumption levels associated with execution of at least *one state of the* application", as recited in claim 29. The Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 29.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Also, Cyran's Figure 13 appears to provide a snapshot, rather than an indication of the states of the software instructions over time. Additionally, the maximum power and average power statistics shown in Cyran's Figure 13 do not disclose "...instantaneous power consumption levels ...", as recited in claim 29. Finally, Cyran's Figure 13 does not associate instantaneous power consumption levels with states of different applications.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 29, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 29. These comments apply equally to claims 30-31, which depend from claim 29 and stand rejected under similar grounds.

Turning to **independent claim 32**, the Applicant has amended claim 32 to further clarify the system. For convenience, the Applicant reproduces claim 32 as amended above, with redlines included:

32.   (Currently Amended) A system comprising:

a power profiler configured to correlate, over time. an-at least one identified state of one of a plurality of software instruction-applications with an amount ofinstantaneous power consumption leveled during execution of the identified state of the software instructionapplication;

a lookup table having information for identifying the identified software instructionapplication; and

a power profile being generated by the power profiler and having-associating instantaneous power consumption values over time and-with the identified states of the software instructionsapplications, each-with the instantaneous power consumption values being paired with a—corresponding identified states of the software instructionapplications.

These revisions are believed fully supported under 35 U.S.C. § 112, 1ˢᵗ paragraph, on at least the same basis as were the revisions to claim 1 as discussed above.

Turning to the cited art, the Applicant respectfully submits that Cyran does not disclose at least the foregoing features as recited above in claim 32. More particularly, Cyran does not disclose at least "a power profiler configured to correlate, *over time*, at least one *identified state* of one of a plurality of software applications with an *instantaneous power consumption level* during execution of the identified state of the software application", as recited in claim 32. The Applicant's comments regarding Cyran directed above to claim 1 thus apply equally to claim 32.

More particularly, Cyran's Figure 13 does not disclose states of the various functions shown therein. Also, Cyran's Figure 13 appears to provide a snapshot, rather than an indication of the states of the software instructions over time. Additionally, the maximum power and average power statistics shown in Cyran's Figure 13 do not disclose "...an instantaneous power consumption level ...", as recited in claim 32. Finally, Cyran's Figure 13 does not correlate instantaneous power consumption levels with states of different applications.

Based at least on the foregoing, the Applicant submits that Cyran does not support a § 102 rejection of claim 32, and thus requests reconsideration and withdrawal of the § 102 rejection of claim 32. These comments apply equally to

claims 33-34, which depend from claim 32 and stand rejected under similar grounds.

Conclusion

The Applicant respectfully requests reconsideration and withdrawal of the § 102 rejections of Claims 1-34 as stated in the Action. If personal discussion would advance prosecution of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

Date: _28 SEPT 05_   By: _____

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